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NEW YORK, NY 10004

EXAMINER

HO, THOMAS M

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/749,050

Applicant(s)

KRAUTER ET AL.

Examiner

Thomas M Ho

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 9/13/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-9 are pending.

Response to Arguments

2. Applicants arguments have been fully considered but they are not persuasive.

Applicant has amended independent claims 1, 8, and 9 to further recite the limitation “wherein a remaining memory area of the programmable memory device is capable of being erased”

Applicant has further gone on to argue that

“According to the Examiner, this limitation is met by column 1, lines 52-55, of Berra, but Applicants disagree with this assessment. This portion of Berra states that “with a permanent ROM (PROM), the computer programs are typically hard-wired into the chip during manufacture of the chip, and the program cannot thereafter be changed.” Applicants amended the claims to recite that a remaining portion of the programmable memory device is capable of being erased. As seen in the passage relied on by Berra, there is no portion in a PROM that is capable of being erased. Therefore, in view of this amendment to the claims, withdrawal of the rejection is respectfully requested.”

It is noted carefully that Applicant has, upon amending the claims in claim 1, “storing information in a separate area of the programmable memory device where only reading and programming are possible” and at the same time, claims that this remaining memory area “is

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capable of being erased”. These two limitations are naturally in conflict. How can applicant claim storing information in a memory area where **only reading and programming are possible**, and then claim that same area has a region that is **capable of being erased**?

The Examiner has decided not to reject these claims under 35 USC 112 as being vague and indefinite.

The Examiner will make it known to the record that those of ordinary skill in the art will immediately recognize that the nature of ROMs in general allow only an initial “writing” or programming of the ROM and thereafter only read operations. “ROM” stands for Read Only Memory. Write operations, and erasures are generally not permitted or possible.

It is known to those in the art however that under special circumstances, any memory including a ROM **can be** erased. However, erasures of the ROM are not considered typical operations and are allowed only for unusual circumstances. Nevertheless, it is well known that erasures of ROMs are indeed possible. For this reason, the Examiner has noted that Applicant’s claim, while appearing self-conflicting and impossible, does indeed fit within a reasonable interpretation of the claimed language to those versed in the art.

However, by taking into consideration knowledge of the art however, Applicant’s argument is also rendered moot. All ROMs are capable of being erased, and Applicant’s amendment is deficient to overcome the rejection.

Furthermore, the Examiner notes that Berra even states that the ROM used in Berra's invention can be erased.

Berra (Column 1, lines 57-67) describes other ROMs in the background of the invention that EPROMS can be erased by being irradiated and EEPROMS may even be erased in portions.

In other words, Berra (Column 1, lines 57-67) clearly discloses a remaining portion of ROMs that can be erased. In this regard as well, Applicant's arguments are deficient in overcoming in rejection and anticipation by Berra is maintained.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Berra, US patent 5,787,367.

In reference to claim 1:

Berra discloses a method for detecting a manipulation of a programmable memory device of a digital controller for a motor vehicle, comprising the steps of:

- Storing in the programmable memory device data and control programs for an operation of the digital controller and for a control/regulation of function of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 1, lines 30-41) & (Column 5, lines 1-10)
- Storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the step of storing information regarding the programming/reprogramming operation being performed in conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)
- Reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area is the authorization database from which the encrypted information is compared. (Column 7, line 57 – Column 8, line 15), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

In reference to claim 4:

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Berra (Column 1, lines 42-65) discloses the method according to claim 1, wherein the information regarding the programming/reprogramming is stored in the separate memory area by setting bits, where it is known that digital information is stored as a series of zero and one bits.

In reference to claim 5:

Berra disclose the method according to claim 1, further comprising the step of:

Storing the information regarding the programming/reprogramming in a one-time-programmable region of the programmable memory device, the programmable memory device being arranged as a flash memory, where the flash memory that is one time programmable is known as a PROM.

(Column 1, line 41-54)

In reference to claim 6:

Berra discloses the method according to claim 1, further comprising the step of:

Storing in the separate memory area information from an external programming unit for programming/reprogramming a flash memory, where information is stored in the database concerning the authorization information necessary to program or reprogram the flash memory.

(Column 3, line 7-35)

In reference to claim 7:

Berra discloses the method according to claim 1, further comprising the step of:

Storing in the separate memory area information from an arrangement of the digital controller for storing the information regarding the programming/reprogramming operation, where information is stored in the database concerning the authorization information necessary to program or reprogram the flash memory. (Column 3, line 7-35)

In reference to claim 8:

Berra discloses an external programming unit for at least one of programming and reprogramming a flash memory of a digital controller for a motor vehicle, the flash memory including a programmable memory device, the external programming unit comprising:

- An arrangement for storing in the flash memory data and control programs for an operation of the digital controller and for a control/regulation of functions of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 5, lines 1-10)
- An arrangement for storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the storing of the information regarding the programming/reprogramming operation occurring in conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)

- An arrangement for reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, where the password and set of variables are read out and compared. (Column 7, line 40 – Column 8, line 15)
- An arrangement for storing in the separate memory area information from an external programming unit for programming/reprogramming the flash memory, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area information is the authorization database. (Column 3, lines 7-35), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

In reference to claim 9:

Berra discloses a digital controller for a motor vehicle, comprising:

- A programmable memory device for storing data and control programs for an operation of the digital controller and for a control/regulation of functions of the motor vehicle, where the programmable memory device is flash memory that contains software to control the engine unit. (Column 5, line 1-10)
- An arrangement for storing information regarding a programming/reprogramming operation in a separate memory area of the programmable memory device where only reading and programming are possible (Column 1, lines 52-55), the storing of the information regarding the programming/reprogramming operation occurring in

conjunction with each programming/reprogramming operation of the programmable memory device, where the information regarding the programming/reprogramming operation is stored in the authorization database and the memory of the programmable memory device. (Column 7, line 57 – Column 18, line 15)

- An arrangement for reading out and comparing a content of the separate memory area with another set of information in order to detect a manipulation, where the password and set of variables are read out and compared. (Column 7, line 40 – Column 8, line 15)
- An arrangement for storing in the separate memory area information from an arrangement of the digital controller for storing the information regarding the programming/reprogramming operation, wherein a remaining memory area of the programmable memory device is capable of being erased, where the separate memory area information is the authorization database. (Column 3, line 7-35), and where the ROMs used by Berra include EEPROMS and EPROMS which are ROMs capable of being erased. (Column 1, lines 57-67)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2,3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berra.

In reference to claim 2:

Berra discloses a database containing a series of variables and a password and serial identification number that must be compared to be fully authorized. (Column 3, line 7-35)

Berra fails to explicitly disclose an embodiment where in the separate memory area, information regarding a cumulative number of programming/reprogramming operations of the programmable memory device is stored.

The Examiner notes that there are a number of common methodologies well known in the art, in which a cumulative number of programming/reprogramming operations of the programmable memory device is stored.

For example:

- a log of the timestamps of the changes made to a EEPROM in a database.
- A database which contained variables in which the variables would record the state information of the vehicle
- An audit trail of possible changes.

would all serve as an information regarding a cumulative number of programming/reprogramming operations.

The Examiner takes official notice that the recording of state information and timestamping events was well known in the art at the time of invention.

For example Federle et al. (Column 1, lines 24-40) and Ebaugh et al. (Column 1, lines 15-30) & (Column 1, lines 45-54), which disclose a log of timestamps, and the audit trail of possible changes, respectively. The Department of Motor Vehicles in various states have also been known to contain a database which records the state information about vehicles such as the odometer readings during a vehicle title transfer, a deterrent for odometer tampering.

It would have been obvious to one of ordinary skill in the art at the time of invention to use a log through time stamps changes made to the PROM by logging it into the authorization database at each change, because it would create a record of all changes made to the flash memory of the vehicle allowing detection of fraud by comparing the current settings to past records.

Claim 3 is rejected for the same basis as claim 2.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of the final action and the advisory action is not mailed under after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension pursuant to 37 CFR 1.136(A) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication from the examiner should be directed to Thomas M Ho whose telephone number is (571)272-3835. The examiner can normally be reached on M-F from 9:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A. Morse can be reached on (571)272-3838.

The Examiner may also be reached through email through Thomas.Ho6@uspto.gov

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

General Information/Receptionist	Telephone: 571-272-2100	Fax: 703-872-9306
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TMH

February 27, 2005



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